

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/24/10

Date Received: 06/02/10

Project: Alaskan Copper Works 2Q10 Stormwater Sampling, F&BI 006019

Date Analyzed: 06/23/10

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR TOTAL SUSPENDED SOLIDS
BY METHOD 2540D**

Results Reported as mg/L (ppm)

<u>Sample ID</u> Laboratory ID	Total Suspended <u>Solids</u>
CB331707 006019-01	52 ht
CB330001 006019-02	130 ht
Method Blank	<20

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**QUALITY ASSURANCE RESULTS
FROM THE ANALYSIS OF WATER SAMPLES FOR
TOTAL SUSPENDED SOLIDS
BY METHOD 2540D**

Laboratory Code: 006190-02 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
TSS	mg/L	130	117	11	0-20

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
TSS	mg/L	50	96	104	67-128	8

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Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 - More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr - The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

006019



- ☒ Seattle/Edmonds (425) 778-0907
☐ Tacoma (253) 926-2493
☐ Spokane (509) 327-9737
☐ Portland (503) 542-1080
☐ _____

BILL TO ALASKAN COAST WORKS

 PO # ~~ME 12458~~
 M125346

KO 06/02/10

Date 6/2/10

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Chain-of-Custody Record

Project Name		Project No.		Testing Parameters		Turnaround Time	
ALASKAN COAST WORKS		J19801.010.01				<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Accelerated	
Project Location/Event		Seattle, WA / 2Q10 Stormwater Sampling					
Sampler's Name		GTH					
Project Contact		Joe Kalmar - LAI / Gerald Thompson - ACW					
Send Results To							
Sample I.D.	Date	Time	Matrix	No. of Containers	Observations/Comments		
CB331707	6/2/10	1030	H2O	1	01: <input checked="" type="checkbox"/> Allow water samples to settle, collect aliquot from clear portion 02: <input checked="" type="checkbox"/> NWTPH Dx - run acid wash/silica gel cleanup <input type="checkbox"/> run samples standardized to product <input type="checkbox"/> Analyze for EPH if no specific product identified VOC/BTEX/VPH (soil): <input type="checkbox"/> non-preserved <input type="checkbox"/> preserved w/methanol <input type="checkbox"/> preserved w/sodium bisulfate <input type="checkbox"/> Freeze upon receipt <input type="checkbox"/> Dissolved metal water samples field filtered Other _____		
CB330001	6/2/10	1100	H2O	1			
Samples received at _____ °C							
Special Shipment/Handling or Storage Requirements ICED				Method of Shipment Dropped off @ Lab			
Relinquished by		Received by		Relinquished by		Received by	
Signature		Signature		Signature		Signature	
Printed Name		Printed Name		Printed Name		Printed Name	
Company		Company		Company		Company	
Date		Date		Date		Date	
Time		Time		Time		Time	

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
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e-mail: fbi@isomedia.com

June 24, 2010

Joe Kalmar, Project Manager
Landau Associates
130 2nd Ave. S.
Edmonds, WA 98020

Dear Mr. Kalmar:

Included are the results from the testing of material submitted on June 2, 2010 from the Alaskan Copper Works 2Q10 Stormwater Sampling, F&BI 006019 project. There are 3 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Kortland Orr
Project Manager

Enclosures

c: Gerry Thompson, Alaskan Copper
NAA0624R.D●C